Volume Index—1977
Volume Forty-Five

This index serves as a ready reference to RSC articles and product announcements published from January through December 1977. The figure following the date of issue refers to the page number.

A

A/C Installation and Service Guidelines *By Paul Doty* .Jun-17
ACES Test House Uses Heat Pump *By W. P. Levins and N. J. Wilds* Nov-14
Advance Registration Form, RSES Conference Sep-27
Ammonia Refrigeration—Flow Controls Automate the System *By V. V. Solomon* Feb-12
Another First . . . RSES Heat Pump Instructor's Seminar Jul-38

B—C

Basic Humidification Handbook *By Ivan Stepnich* Jan-14
BHC Promotes Hydronic Retrofit . . . And Pulls No Punches ..Dec-12
Check Your Troubleshooting Skill *By Joe Ammons CM* Jun-20
Check Your Know-How on These Problem Situations *By Joe Ammons CM* Aug-15
Chlorofluorocarbons . . . EPA Goes Into Phase II Dec-20
Cooling Without Fluorocarbons *By Willard O. Nuzum* May-18

D—E

Do You Know Why Your Son Works For You? *By Frank M. Butrick* Oct-14
Electricity—Check Your On-Site Skill *By Joe Ammons CM* Apr-32; May-20
Energy Conservation—Check Your On-Site Skill *By Joe Ammons CM* Feb-26
EPA Goes Into Phase II, Chlorofluorocarbons Dec-20

F—H

The Family-Owned Business—'Retirement' *By Frank M. Butrick* Sep-14
'Is There Room for You and Your Sons? *By Frank M. Butrick* Dec-7
Forum '77: 'Concepts Become Realities Jan-9
Fluorocarbons, If Not, What Are the Alternatives *By Dr. Ralph Downing* Dec-14
Garden State Service Seminar Mar-24
General Bibliography On Solar Energy Utilization Jul-20
Heat Pump Instructor Seminar Locations Jun-35
Heat Pumps, A Utility on, 'This Time We Want Assurances' Dec-22
Heat Pumps—One Year Later May-12
How To Check Your 'Air' Skills *By Joe Ammons CM* Nov-18

I—M

Ice Maker Heat Pump: A New Tool For Energy Conservation *By Harry C. Fischer* Jan-23; Feb-21
The Industry's First Heat Pump Service Seminar Held by RSES ..Apr-45
International Exposition Examines Energy Management Jan-20
In This Age of Retrofit, Controls Can Build Profits Oct-24
Is Starting at the Bottom a Waste of Time? *By Frank M. Butrick* Nov-12
Keeping Refrigerators Frostless *By Tom Morrison* Mar-28
Lieberman's Service Tips *By Eli Lieberman CM* Feb-34
Lubrication—Check Your On-Site Skill *By Joe Ammons CM* Mar-44
Meeting Domestic Demand *By Donald Lynch* May-17
Metrication: How Real Are Your Fears? Mar-12
MSMC Hot Line Jan-45; Feb-19; Mar-20; Apr-28; May-30; Jun-22; Aug-18; Sep-28; Oct-32; Nov-24; Dec-17

N

New England Hosts RSES/ARI Conference Feb-37
New Products
AC/DC Inverter Jul-9
AC/DC Voltage Tester Dec-8
Adapter Kit Jul-9
Add-On Heat Pump Aug-4
Air Balancer Mar-8
Air Cleaner Feb-4; May-4
Attic Power Ventilator Aug-4
Blower Motor Oct-4
Booster Fans Jul-4
Bus-Bar Snap-Around ...Jun-37

Charging Station Jun-4
Clip-On Volt-Ohm-Ammeter Jul-4
Clock Thermostat .Jan-4; Nov-4
Cold Storage Fire Doors .Jun-33
Combination Starter Jun-4
Concrete Anchor Aug-4
Condensing Units Feb-11; May-4
Condensing Unit Assemblies Dec-6
Condensing Unit Racks ..Jan-4
Control Systems Aug-4

DC/AC Inverter Jul-9
Delay Cell Dec-8
Demonstration Unit Jun-4
Dial Thermometers May-4
Digital Clamp-On Dec-4
Digital Snap-Around Nov-4
Digital V-O-M Sep-4
Duct Liner Apr-4
Duct Sealing Bands Mar-4

Electric Heat Control Apr-4
Energy Saving Control ...Mar-4
Energy Saving Device ...Dec-8
Epoxy Kits Jun-35

55° Sensor Sep-4
Flaker Dispenser Jul-4
Flow Control Products ...Feb-4
Food Case Jan-4

Halogen Leak Detector ...Jun-4
Heat Gun Sep-4
Heat Pump Apr-4
Heat Pump Manifold Jun-33
Heat Pump System Jul-4
Heat Pump (Add-On) Aug-4
Heat Pump (Single-Pkg.) .Mar-4
Heat Pump (Split System) Sep-4
High Efficiency Motors ...Nov-4
Hook-On Meter Mar-4
Hot Water Heating Package Jun-37
Humidifier Flushing May-7
Humidifier (Industrial) Aug-6
Humidity Controller Jan-4

Ice Cuber/Flaker Jun-8
Ice Cube Maker Sep-4
Ice Dispenser Nov-4
Ice Merchandiser Jun-35
Ice Storage Bins Jul-9
Industrial Humidifier Aug-6
Instrument Case Nov-4
Insulation Tester ..Mar-8; Sep-8
Inverter (DC/AC) Jul-9

Large Volume Ice System Dec-4
Leak Detector Apr-6; May-7
Leak Detector (Refrigerant) Sep-4
Light-Duty Contactor Jan-4
Line Tapping Valve Aug-4
Low Current Snap-Around Sep-8
Low Current Volt-Ohm-Ammeter Jan-6; Feb-8

Volume Index—1977
Volume Forty-Five

This index serves as a ready reference to RSC articles and product announcements published from January through December 1977. The figure following the date of issue refers to the page number.

A

A/C Installation and Service Guidelines *By Paul Doty* .Jun-17
ACES Test House Uses Heat Pump *By W. P. Levins and N. J. Wilds* Nov-14
Advance Registration Form, RSES Conference Sep-27
Ammonia Refrigeration—Flow Controls Automate the System *By V. V. Solomon* Feb-12
Another First . . . RSES Heat Pump Instructor's Seminar Jul-38

B—C

Basic Humidification Handbook *By Ivan Stepnich* Jan-14
BHC Promotes Hydronic Retrofit . . . And Pulls No Punches ..Dec-12
Check Your Troubleshooting Skill *By Joe Ammons CM* Jun-20
Check Your Know-How on These Problem Situations *By Joe Ammons CM* Aug-15
Chlorofluorocarbons . . . EPA Goes Into Phase II Dec-20
Cooling Without Fluorocarbons *By Willard O. Nuzum* May-18

D—E

Do You Know Why Your Son Works For You? *By Frank M. Butrick* Oct-14
Electricity—Check Your On-Site Skill *By Joe Ammons CM* Apr-32; May-20
Energy Conservation—Check Your On-Site Skill *By Joe Ammons CM* Feb-26
EPA Goes Into Phase II, Chlorofluorocarbons Dec-20

F—H

The Family-Owned Business—'Retirement' *By Frank M. Butrick* Sep-14
'Is There Room for You and Your Sons? *By Frank M. Butrick* Dec-7
Forum '77: 'Concepts Become Realities Jan-9
Fluorocarbons, If Not, What Are the Alternatives *By Dr. Ralph Downing* Dec-14
Garden State Service Seminar Mar-24
General Bibliography On Solar Energy Utilization Jul-20
Heat Pump Instructor Seminar Locations Jun-35
Heat Pumps, A Utility on, 'This Time We Want Assurances' Dec-22
Heat Pumps—One Year Later May-12
How To Check Your 'Air' Skills *By Joe Ammons CM* Nov-18

I—M

Ice Maker Heat Pump: A New Tool For Energy Conservation *By Harry C. Fischer* Jan-23; Feb-21
The Industry's First Heat Pump Service Seminar Held by RSES ..Apr-45
International Exposition Examines Energy Management Jan-20
In This Age of Retrofit, Controls Can Build Profits Oct-24
Is Starting at the Bottom a Waste of Time? *By Frank M. Butrick* Nov-12
Keeping Refrigerators Frostless *By Tom Morrison* Mar-28
Lieberman's Service Tips *By Eli Lieberman CM* Feb-34
Lubrication—Check Your On-Site Skill *By Joe Ammons CM* Mar-44
Meeting Domestic Demand *By Donald Lynch* May-17
Metrication: How Real Are Your Fears? Mar-12
MSMC Hot Line Jan-45; Feb-19; Mar-20; Apr-28; May-30; Jun-22; Aug-18; Sep-28; Oct-32; Nov-24; Dec-17

N

New England Hosts RSES/ARI Conference Feb-37
New Products
AC/DC Inverter Jul-9
AC/DC Voltage Tester Dec-8
Adapter Kit Jul-9
Add-On Heat Pump Aug-4
Air Balancer Mar-8
Air Cleaner Feb-4; May-4
Attic Power Ventilator Aug-4
Blower Motor Oct-4
Booster Fans Jul-4
Bus-Bar Snap-Around ...Jun-37

Charging Station Jun-4
Clip-On Volt-Ohm-Ammeter Jul-4
Clock Thermostat .Jan-4; Nov-4
Cold Storage Fire Doors .Jun-33
Combination Starter Jun-4
Concrete Anchor Aug-4
Condensing Units Feb-11; May-4
Condensing Unit Assemblies Dec-6
Condensing Unit Racks ..Jan-4
Control Systems Aug-4

DC/AC Inverter Jul-9
Delay Cell Dec-8
Demonstration Unit Jun-4
Dial Thermometers May-4
Digital Clamp-On Dec-4
Digital Snap-Around Nov-4
Digital V-O-M Sep-4
Duct Liner Apr-4
Duct Sealing Bands Mar-4

Electric Heat Control Apr-4
Energy Saving Control ...Mar-4
Energy Saving Device ...Dec-8
Epoxy Kits Jun-35

55° Sensor Sep-4
Flaker Dispenser Jul-4
Flow Control Products ...Feb-4
Food Case Jan-4

Halogen Leak Detector ...Jun-4
Heat Gun Sep-4
Heat Pump Apr-4
Heat Pump Manifold Jun-33
Heat Pump System Jul-4
Heat Pump (Add-On) Aug-4
Heat Pump (Single-Pkg.) .Mar-4
Heat Pump (Split System) Sep-4
High Efficiency Motors ...Nov-4
Hook-On Meter Mar-4
Hot Water Heating Package Jun-37
Humidifier Flushing May-7
Humidifier (Industrial) Aug-6
Humidity Controller Jan-4

Ice Cuber/Flaker Jun-8
Ice Cube Maker Sep-4
Ice Dispenser Nov-4
Ice Merchandiser Jun-35
Ice Storage Bins Jul-9
Industrial Humidifier Aug-6
Instrument Case Nov-4
Insulation Tester ..Mar-8; Sep-8
Inverter (DC/AC) Jul-9

Large Volume Ice System Dec-4
Leak Detector Apr-6; May-7
Leak Detector (Refrigerant) Sep-4
Light-Duty Contactor Jan-4
Line Tapping Valve Aug-4
Low Current Snap-Around Sep-8
Low Current Volt-Ohm-Ammeter Jan-6; Feb-8

Megohmmeter Jun-4
Merchandiser May-7; Aug-6
Metal Nibbler Sep-8
Monitoring System Feb-8
Mounting Template Jun-33
Multimeter Apr-6
Multi-Tester Aug-42; Oct-4
Multizone Trainer Feb-4

Night Set-Back Thermostat Dec-4

Perimeter Heaters Jan-6
Photoelectric Tachometer Nov-4
Pipe Joint Compound Jul-9

Refrigerant Leak Detector Sep-4
Refrigeration System Aug-4
Repair Tape May-4

Screw Compressor Feb-4
Sensor (55°) Sep-4
Single Pkg. Heat Pump ..Mar-4
Smoke Detector Jun-4
Snap-Around Line Apr-4
Snap-Around (Digital) Nov-4
Snap-Around (Low Current) Sep-8
Soft Drink Center Oct-4
Solar Controllers Apr-4
Solar Heating Systems ...Jun-8
Solar Hot Water Module .Jun-35
Special Product Case Oct-4
Split-System Heat Pump .Sep-4
Steam Humidification Jan-4

Strip Doors Dec-4
Supermarket A/C System .Feb-8

Test Instrument ...Feb-4; Aug-6
Test Stand Oct-4
Tool Cases Mar-4
Tool Organizer ...Apr-6; May-4
Tube Forming Feb-8
Tubular Duct Mute Jul-4

Unit Coolers Mar-4

Vacuum Gauges May-4
Vacuum Pumps Oct-4
Valve Core Depressor ...Dec-4
Valve Core Remover Dec-4
Vinyl Foam Tape ..Feb-8; Oct-4
Volt Ammeter May-4; Jun-35
Volt-Ohmmeter.....Jun-33
Volt-Ohm-Ammeter Feb-11; Apr-4; June-8; Dec-6, 34
Volt-Ohm-Ammeter (Clip-On) Jul-4
Volt-Ohm-Ammeter (Low Current) Jan-6; Feb-8

Water Conditioner Feb-4

Zone Control Valves Feb-8
North Carolina's '77 Conference Features ARI Exhibits ...Nov-27

P—R

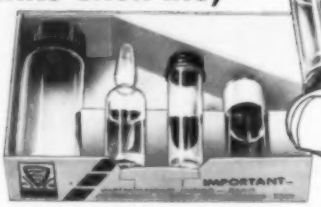
Parts, Pieces & Comments May-9

A Pneumatic Economizer Uses Outside Air For Cooling Aug-24; Sep-22
Recreating the Market *By William J. Bailey* May-12
RSC Interviews William Barranger Apr-43
RSC Interviews Kenneth S. Franklin CM Chairman, RSES E & E Board Jan-28
RSES 40th International Conference Preview Sep-24
RSES 40th International Conference Oct-20
RSES Announces the Industry's First International Heat Pump Training Program Apr-48
RSES Holds First Solar Energy Seminar Jan-38
RSES Looks Ahead to a Booming Future Sep-30

RSES News Items

Another First ... RSES Heat Pump Instructor's Seminar Jul-38
The 31st Annual Conference of The Buckeye State Association Aug-32
CARSES Conference Held in Phoenix Jul-46
CARSES Holds Nineteenth At California Polytechnic State University May-48

...a HENRY Plus in acid testing Hermetically Sealed Glass AMPULE
(Only UK-90 has indefinite shelf life)



✓ You get factory fresh solution for years.
✓ Positive color identification.
✓ Can be used with refrigerant with colored leak detective.

U.S. Patent 3,653,839

Write for Catalog 109

6097

HENRY VALVE CO. CONTROLLING FLOW SINCE 1914

HENRY VALVE COMPANY
3215 NORTH AVE., MELROSE PARK, ILL. 60160
Warehouses: Atlanta, GA • Carteret, NJ • Chicago, IL • Dallas, TX • Los Angeles, CA • So. San Francisco, CA

Where's the screwdriver?

Tools and parts get lost and dirty in a tool box. That wouldn't happen in a Platt tool case. A Platt tool case comes with a unique one piece molded pallet* that has individual pockets for all your tools. The case itself has compartments for larger tools, parts boxes and equipment. And multiple lid pockets for papers and order books.

Platt's tool cases come in either strong, handsome lightweight ABS Thermoplastic or a combination of rich looking expanded vinyl and ABS Thermoplastic.

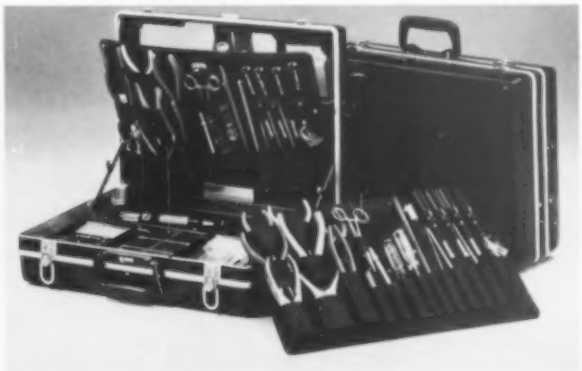
And Platt's tool cases come with a 5 year guarantee. They're in stock at our distributors, the Harry Alter Co., Pameco-Aire and the Noland Co. Or write Platt for more information on our complete line of tool cases.

platt

* Pat. No. 3,880,285

Cases for business and industry.

2301 S. Prairie Ave., Chicago, Ill. 60616 (312) 225-6670



CARSES in WEST-77 . . .Aug-38
Certified Instructors For Heat Pump Training Oct-37; Nov-30
Cleveland Sponsors Heat Pump Seminar May-50
Constitutional Amendments Proposed Jul-40
Des Moines Hosts RSES/ARI Conference Jun-27
Heat Pump Training Course Instructor Seminar Locations Jun-35
Illinois State Meets in Quincy Jan-45
The Industry Looks to RSES For Certified Heat Pump Training Oct-9
International Board of Directors To Select 1980 Conference Site This Month May-47
International Society Fiscally Sound Oct-38
MSMC's Spring Meeting .Jul-39
1977 Garden State Service Seminar Attendance: 3,277 .....May-43
1980 Conference Site Denver, Colorado Jul-44
North Carolina Gears For RSES/ARI Conference Aug-33
North Carolina's '77 Conference Features ARI Exhibits Nov-27
Ontario Maple Leaf Holds Heat Pump Seminar .Mar-48
Plans Underway For Kansas City Conference in November Aug-28
RSES/ARI In North Carolina Sep-45
Santa Clara Valley Chapter Completes Pilot Solar Program Aug-30
RSES/COD Seminar Jun-28
RSES Looks Ahead to a Booming Future Sep-30
VICA National Leadership Conference and United States Skill Olympics .Sep-43
WIA and RSES Canada Meet in Vancouver Sep-42
York Pennsylvania Starts the New Way for E.K.A. . .Aug-34
The Role of Screw Compressors In Commercial/Industrial Refrigeration . .Jun-12
Room for Growth *By Norman C. Bernhardt* May-15

S—Z

Single-Family Demand *By S. R. Skinner* May-13
Solar Energy Sponsors A Chance to Pioneer Jul-12
Solar System Components *By Solar Hydro, Inc.* Jul-17
Take a Tour Through The Chicago Show With RSC Apr-14
Try This Troubleshooting 'Evaluator' *By Joe Ammons CM* Sep-18
Water Cooled Condensing Has New Meaning *By Otto J. Nussbaum CM* Jul-24; Aug-20
The West Is A Cradle of Solar History *By Professor John Yellott* Aug-12
What To Do About Refrigerant Floodback *By Warren V. Darne* Mar-15
Will a Solar System Work Up North? *By Dr. W. A. Beckman* Mar-32
The Wisdom of Big Brother, III *By Richard L. Lesher* Nov-36
Your Insulation Knowledge Is Crucial Now *By Joe Ammons CM* Oct-17

classified advertising

RATES: 30¢ per word; minimum 25 words. — $2.00 per line for bold face headings: $20.00 per inch for line listings. — All classified advertisements are payable in advance.

RETUBING — Immediate field and shop service, absorption, centrifugal & reciprocating systems. Ammonia, Freon, lithum, Bromide, condensers, brine coolers, chillers & heat exchangers retubed. New and used shell and tube units in stock, or will build to order, fast delivery, all metals. HAVE TUBES WILL TRAVEL, CALL, Wolf Condenser Works, Inc., 709 Hart St., Brooklyn, N.Y. 11221. Phone: 212/H05-8331 or 212/H13-1567.

SCHEMATIC WIRING BOOK

A new 64-page, softbound book explaining schematic wiring for all types of residential heating and air conditioning equipment is now available. Examples, reader exercises with answers are included. Cost $6.00 postpaid when payment received with order. Allen Russell Associates, P.O. Box 818R, Marshalltown, Iowa 50158.

EQUIPMENT FOR SALE

RE-BUILT COMPRESSORS (exchange) Carrier, Copelametic, Trane, Worthington, etc. Open and semi-hermetic types, 5 hp and over. Large inventory of most popular models "on the shelf" for immediate delivery. Call or write for quotes, catalogs, etc. CPR Compressors, 4520 Half Crown Drive, Dallas, Texas 75237, (214) 330-0386.

SETMARK™ PIPEMARKERS—They snap-on and stay-on. Guaranteed to hold on pipes or insulation without surface preparation. Request free sample, Form 840. 2080-Seton Name Plate Corp., New Haven, CT 06505.

EQUIPMENT WANTED

WE BUY rebuildable air conditioning and refrigeration (reciprocating) compressors; Carrier, Copelametic, Trane, Worthington and some other makes—open and semi-hermetic types only. Send information re: make, model, condition, asking price. We also quote on rebuild and exchanges. CPR Compressors, 4520 Half Crown Drive, Dallas, Texas 75237, (214) 330-0386.

HVAC Employment Consultants, Inc. (Agency)

We are the largest service dealing in the HVAC, Plumbing, Piping, Refrigeration and Air Conditioning Industries.

V.P. Marketing Heavy Industrial refrigeration background Phoenix $35,000+

Sales Engineers for Midwest Mfgr. Heavy refrigeration or air conditioning background. Locations Northeast and Midwest to $25,000

Applications Engineer Midwest Mfgr. Min. 1 year experience air conditioning or refrigeration background to $20,000

Many other fine positions available. All fees paid by our client companies. Call or write Arthur Lionel in complete confidence. Please state salary and geographical preference. Visit us at the ASHRAE Show. January 30-February 1. We will be at the Atlanta Hilton Hotel.

HVAC EMPLOYMENT CONSULTANTS, INC. (Agency), 150 Broad Hollow Rd., P.O. Box 892, Melville, NY 11746, 516-427-2968.

ENERGY MANAGEMENT SEMINAR

OTTAVIANO'S ENERGY MANAGEMENT IN NEW & EXISTING BUILDINGS SEMINAR. The practical seminar for mechanical and sheetmetal contractors, energy managers, plant engineers, designers, engineers, architects, building owners, managers and superintendents, builders, and government and public service officials that will change the way you operate, show you proven methods of energy conservation, pinpoint your markets, outline products available, detail costs and payback. You will get first-hand knowledge and expertise during this intensive two-day seminar, explore fundamentals and applied energy relationships in commercial, institutional, residential and industrial buildings. Energy audits and the life cycle cost analysis, and how effective it can be in a sales proposal will be thoroughly explained. The energy experts will cover controls, utility rates, lighting, distribution systems, domestic and commercial hot water systems, computer load analysis, energy legislation, demand limiting, heat recovery, boiler efficiency, chillers and refrigeration, insulation, and application of evaporative cooling and roof sprays. A comprehensive Energy Manual is given to each seminar attendee. DENVER: Jan. 9&10. CHICAGO: Jan 12&13. $340. For complete information, call collect 516-271-1911 or write Ottaviano Technical Services, 150 Broad Hollow Rd., Melville, NY 11746.

advertisers

A C & R Components Inc. 45
Airserco Mfg. Co. 39
Alter Co., The Harry 21
Amprobe Instruments, Div. of SOS Consolidated 41
Bramec Corporation 10
Grumman Sunstream 5
Halstead Industrial Prod., a Div. of Halstead Industries 8
Henry Valve Co. 47
Highside Chemicals Inc. .....Back Cover
International Exposition 11
Kramer Trenton Co. .....Inside Back Cover
Larkin Coils, Inc. 1
Nickerson & Collins Co. 10, 43, 44
Penn Division, Johnson Controls 2
Platt Luggage Inc. 47
Refrigeration Service Engineer Society 35
Standard Refrigeration Co. . .Inside Front Cover
Superior Valve Co. 6
Watsco Inc. 45